

# Air Force Materiel Command

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*Developing, Fielding, and Sustaining America's Aerospace Force*



**U.S. AIR FORCE**

## Systems Engineering An Air Force Perspective

Mr. Mark Wilson  
Technical Director  
HQ AFMC/EN  
Comm (937) 257-6735  
[Mark.Wilson@wpafb.af.mil](mailto:Mark.Wilson@wpafb.af.mil)

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*Integrity - Service - Excellence*



# Overview



**AFMCC**

## Overview

DoD Direction

Systems  
Engineering  
Standards

Industry  
& Government  
Challenges

Systems  
Engineering  
Directives

Conclusions

- **DoD Direction**
- **Systems Engineering Standards**
- **Industry and Government Challenges**
- **Systems Engineering Directives**
- **Conclusions**



# DoD Direction



**AFMCC**

Overview

**DoD Direction**

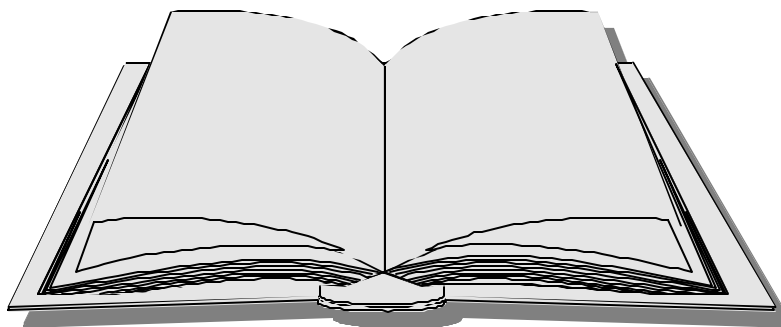
Systems  
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Systems  
Engineering  
Directives

Conclusions

## DoD 5000.2R (June 2001) Section C5.2 - Systems Engineering



**“Thou Shalt Do Systems  
Engineering”**

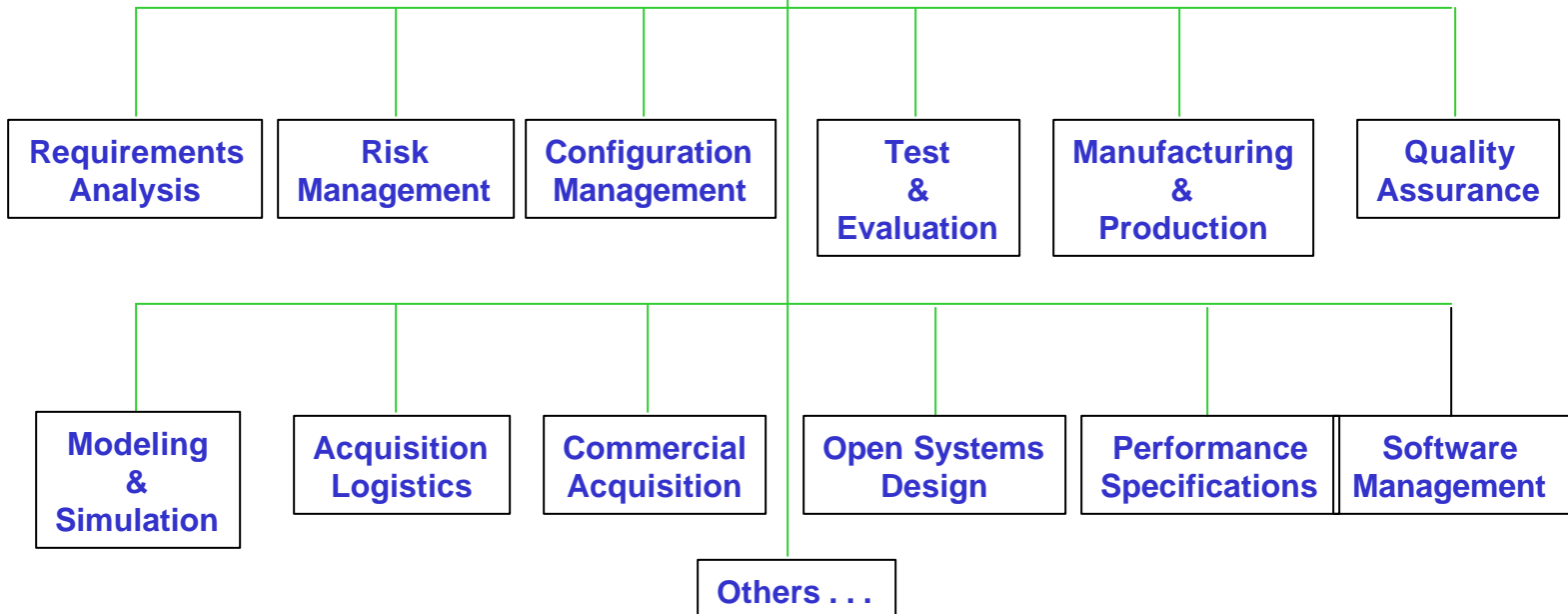


AFMCO

# DoD Direction

## Systems Engineering

### Sound Engineering Practices



**END STATE**

**TOOLS**

**PEOPLE**

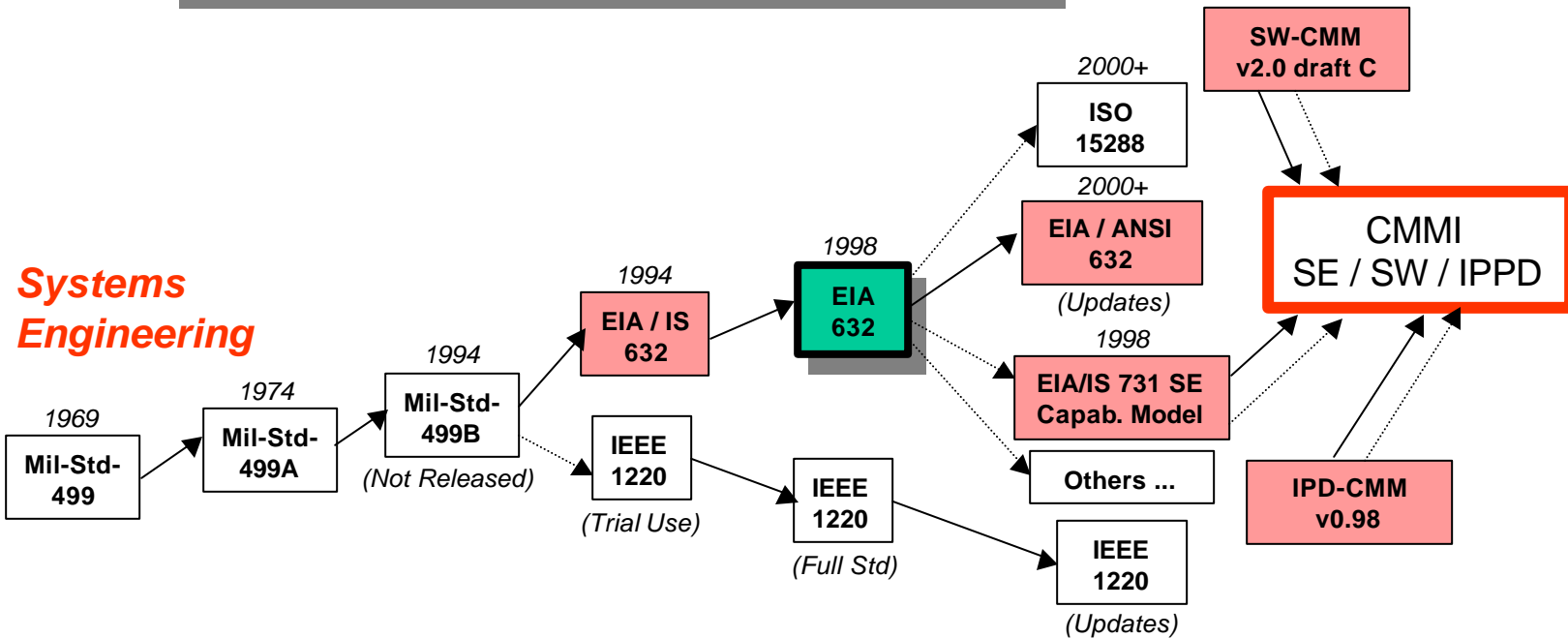


# Systems Engineering Standards

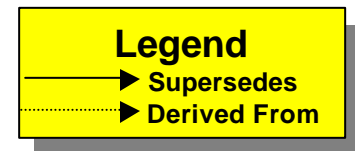


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## Heritage of Systems Engineering Standards



Systems Engineering  $\neq$  CMMI





# Industry & Government Challenges



AFMC

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- Implementation - Industry



## Air Force



TSPR ?

- Sustainment - Contractor



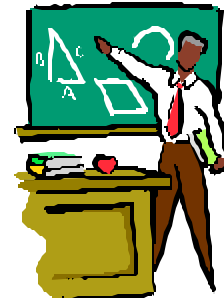
## Organic



- Human - Capital

- Greybeards
- Training
- Retention

## Commercial Government





# Systems Engineering Directives



AFMC

## Air Force 62 Series - Systems Engineering



AFPD 62-1

AFI 62-101

AFMCI 62-101

Guidance Documents

Is There A Need For Air Force  
Systems Engineering Directives ?

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# Conclusions



**AFMC**

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- **Air Force & Industry Need To Emphasize & Revitalize Systems Engineering Discipline**
  - \*\* Work Together To Achieve A Systems Engineering Culture**
- **Systems Engineering Tools and Processes Need To Be Defined for Sustainment, Support, and Modification of Fielded Systems**
  - \*\* USAF Organic Operations May Need Process Information Not Imbedded In CMMI or Other Standards**
- **Should USAF Implement Systems Engineering Directives And Guidance ?**